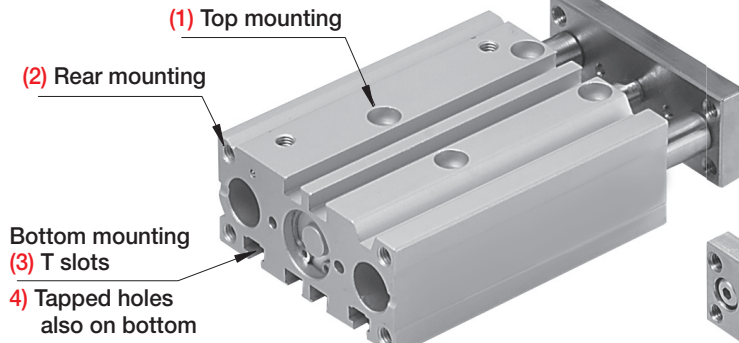


# FGM Series Guided Motion Air Cylinders

## NEW PRODUCT

### Features

**Flexible mounting - 4 choices**  
Easy, precise positioning -  
Dowel pin holes provided on  
each mounting surface.

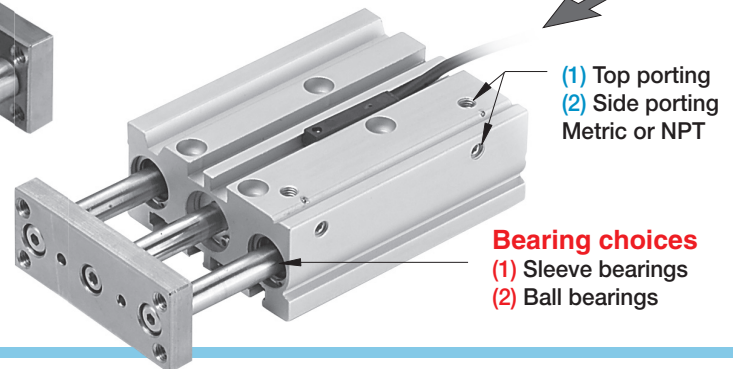
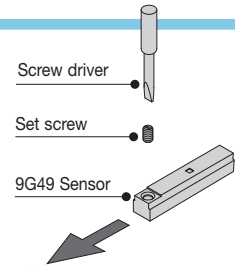


### Specifications



Min. operating pressure 20 psi  
Max. operating pressure 150 psi  
Temperature range 15°F ~ 175°F  
Stroke tolerance +1.5mm, -0.

### Position sensing

**Magnetic pistons are standard**  
on all cylinders. Sensors can  
be mounted either on the top  
or bottom of the cylinder.  
Cylinders have two mounting  
slots on each surface.



### How to order

<b>FGM</b>	<b>L</b>	<b>25</b>	x	<b>20</b>	<b>N</b>	<b>Y</b>
Series	Bearing type	Bore (mm)		Stroke (mm)	Port style	Adjustable stroke type
L	Sleeve bearing 	ø12 ø16 ø20 ø25		10 ~ 100 20 ~ 100	N    NPT Leave blank    Metric	Y    Adjustable stroke. See page 4
M	Ball bearing 	ø32 ø40 ø50 ø63		25 ~ 100		

### Position sensors

**9G49 Series Sensors**  
Order sensors and cord sets  
separately from pricing and  
specs on page 4.

### Cylinder prices

Consult factory for non-standard strokes.

Cylinder type	Cylinder Stroke (mm)												
	10	20	25	30	40	50	75	100	*125	*150	*175	*200	
Sleeve bearing	FGML12 x □	\$92.00	\$93.30	—	\$95.85	\$97.15	\$99.70	\$109.90	\$115.00	—	—	—	—
	FGML16	100.95	102.25	—	104.80	107.35	108.65	120.15	127.80	—	—	—	—
	FGML20	—	122.70	—	125.25	127.80	129.10	138.00	149.50	\$162.30	\$171.25	\$178.90	\$187.85
	FGML25	—	127.80	—	132.90	136.75	140.60	153.35	166.15	178.90	191.70	204.45	217.25
	FGML32	—	—	\$153.35	—	—	171.25	198.10	214.70	236.40	253.05	268.35	281.15
	FGML40	—	—	180.20	—	—	198.10	217.25	238.95	263.25	286.25	299.05	318.20
	FGML50	—	—	204.45	—	—	226.20	247.90	268.35	277.30	299.05	332.25	375.70
FGML63	—	—	235.15	—	—	255.60	278.60	300.30	328.40	353.95	379.55	405.10	
Ball bearing	FGMM12 x □	135.45	138.00	—	148.25	152.10	154.65	199.35	200.75	—	—	—	—
	FGMM16	136.75	139.25	—	143.15	148.25	152.10	195.50	205.75	—	—	—	—
	FGMM20	—	166.15	—	167.40	173.80	178.90	217.25	230.00	255.60	270.90	295.20	306.70
	FGMM25	—	178.90	—	182.75	196.80	209.60	259.40	272.20	306.70	320.75	334.80	347.60
	FGMM32	—	—	207.00	—	—	245.35	270.90	297.75	352.70	373.15	391.05	406.35
	FGMM40	—	—	217.25	—	—	260.70	291.35	314.35	359.10	383.35	398.70	419.15
	FGMM50	—	—	263.25	—	—	296.45	328.40	361.65	392.30	415.30	433.20	471.55
FGMM63	—	—	300.30	—	—	328.40	359.10	387.20	465.15	485.60	523.90	552.05	

\*Note:  
Consult factory for  
delivery of these and  
other non-standard  
strokes.

Options:  
NPT or metric ports -  
no extra charge.

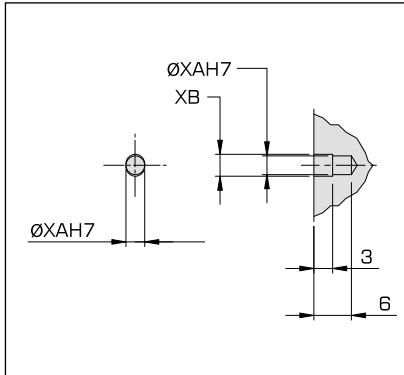
Adjustable stroke -  
see page 4.

Get complete technical info fast. Need a special?  
Email us at [service@fabco-air.com](mailto:service@fabco-air.com)

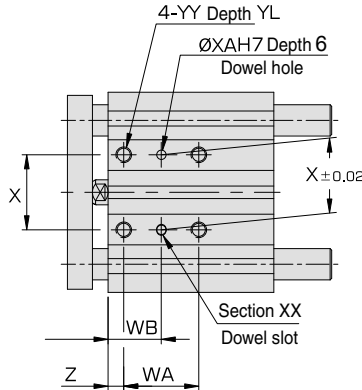
# FGM Series

## Bore sizes $\varnothing 12 \sim \varnothing 25$ – Dimensions (mm)

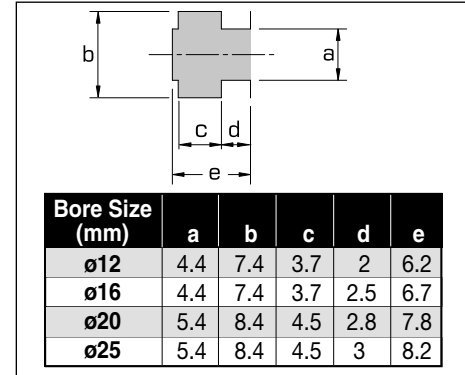
Section XX Dowel Slot Details



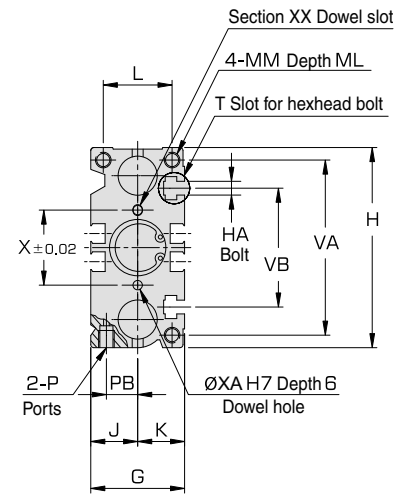
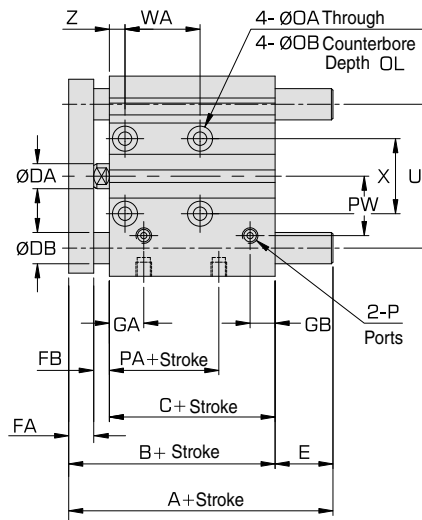
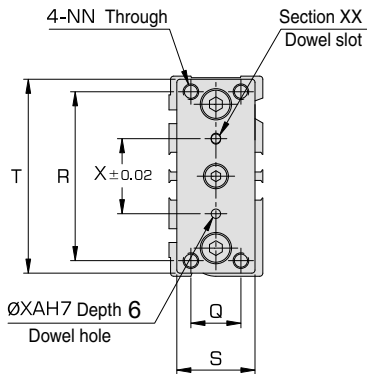
Bottom View



T-slot Mounting Dimensions



Bore Size (mm)	a	b	c	d	e
$\varnothing 12$	4.4	7.4	3.7	2	6.2
$\varnothing 16$	4.4	7.4	3.7	2.5	6.7
$\varnothing 20$	5.4	8.4	4.5	2.8	7.8
$\varnothing 25$	5.4	8.4	4.5	3	8.2



FGML & FGMM common dimensions

Bore Size (mm)	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW
$\varnothing 12$	42	29	6	9.5	3.5	26	11	10	58	M4	13	13	18	M4x0.7	10	M4x0.7	4.3	8	4.5	10-32 or M5x0.8	13	8	18
$\varnothing 16$	46	33	8	8	5	30	11	9.5	64	M4	15	15	22	M5x0.8	12	M5x0.8	4.3	8	4.5	10-32 or M5x0.8	15	10	19
$\varnothing 20$	53	37	10	10	6	36	10.5	10.5	83	M5	18	18	24	M5x0.8	13	M5x0.8	5.3	9.5	5.5	1/8 NPT or PT	12.5	10.5	25
$\varnothing 25$	53.5	37.5	12	11	5	42	11.5	11	93	M5	21	21	30	M6x1.0	15	M6x1.0	5.3	9.5	5.5	1/8 NPT or PT	12.5	13.5	28.5

Bore Size (mm)	Q	R	S	T	U	VA	VB	WA			WB			X	XA	XB	YY	YL	Z
								30 Stroke or less	Over 30 st to 100 st	Over 100 st to 200 st	30 Stroke or less	Over 30 st to 100 st	Over 100 st to 200 st						
$\varnothing 12$	14	48	22	56	41	50	37	20	40	110	15	25	60	23	3	3.5	M5x0.8	10	5
$\varnothing 16$	16	54	25	62	46	56	38	24	44	110	17	27	60	24	3	3.5	M5x0.8	10	5
$\varnothing 20$	18	70	30	81	54	72	44	24	44	120	29	39	77	28	3	3.5	M6x1.0	12	17
$\varnothing 25$	26	78	38	91	64	82	50	24	44	120	29	39	77	34	4	4.5	M6x1.0	12	17

FGML (sleeve bearing) A, DB & E dimensions

Bore Size (mm)	A		DB	E	
	50 Stroke or less	Over 50 to 100 st		50 Stroke or less	Over 50 to 100 st
$\varnothing 12$	42	60.5	8	0	18.5
$\varnothing 16$	46	64.5	10	0	18.5

Bore Size (mm)	A		DB	E	
	50 Stroke or less	Over 50 to 200 st		50 Stroke or less	Over 50 to 200 st
$\varnothing 20$	53	84.5	12	0	31.5
$\varnothing 25$	53.5	85	16	0	31.5

FGMM (ball bearing) A, DB & E dimensions

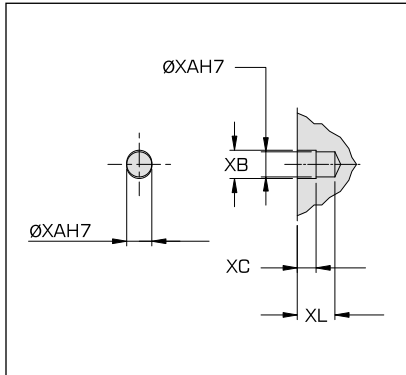
Bore Size (mm)	A			DB	E	
	30 Stroke or less	Over 30 to 100 st	Over 100 st		30 Stroke or less	Over 30 to 100 st
$\varnothing 12$	43	55	85	6	1	13
$\varnothing 16$	49	65	95	8	3	19

Bore Size (mm)	A			DB	E		
	30 Stroke or less	Over 30 to 100 st	Over 100 to 200 st		30 Stroke or less	Over 30 to 100 st	Over 100 to 200 st
$\varnothing 20$	63	80	104	10	10	27	51
$\varnothing 25$	69.5	85.5	104.5	13	16	32	51

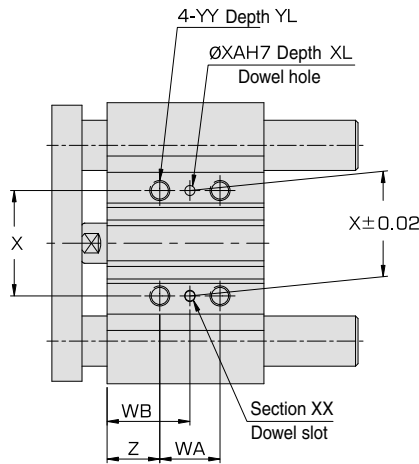
# FGM Series

## Bore sizes $\varnothing 32 \sim \varnothing 63$ – Dimensions (mm)

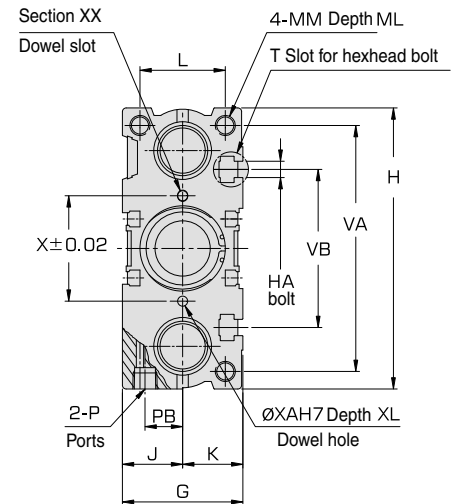
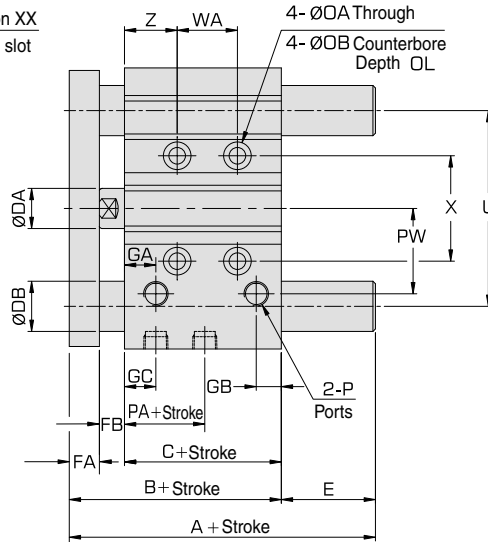
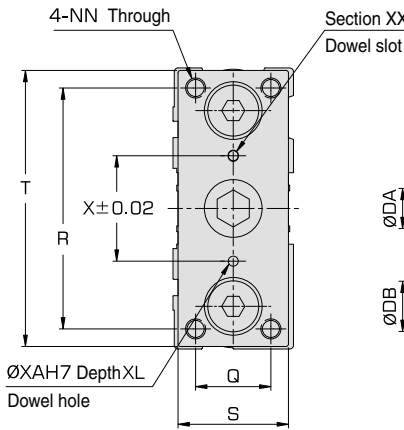
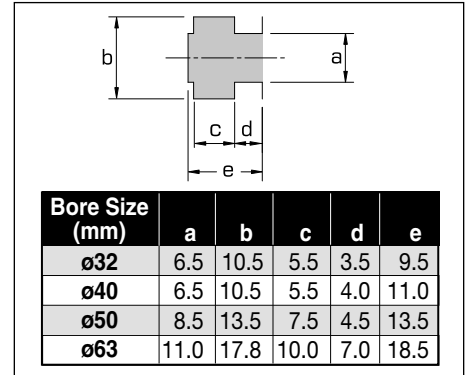
Section XX Dowel Slot Details



Bottom View



T-Slot Mounting Dimensions



FGML & FGMM common dimensions

Bore Size (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW	Q
$\varnothing 32$	59.5	37.5	16	12	10	48	12.5	11.5	12.5	112	M6	24	24	34	M8x1.25	20	M8x1.25	6.6	11	7.5	1/8 NPT or PT	7	15	34	30
$\varnothing 40$	66	44	16	12	10	54	14	12	14	120	M6	27	27	40	M8x1.25	20	M8x1.25	6.6	11	7.5	1/8 NPT or PT	13	18	38	30
$\varnothing 50$	72	44	20	16	12	64	14	13	12	148	M8	32	32	46	M10x1.5	22	M10x1.5	8.6	14	9.5	1/4 NPT or PT	9	21.5	47	40
$\varnothing 63$	77	49	20	16	12	78	16.5	14	16.5	162	M10	39	39	58	M10x1.5	22	M10x1.5	8.6	14	9.5	1/4 NPT or PT	14	28	58	50

Bore Size (mm)	R	S	T	U	VA	VB	WA			WB			X	XA	XB	XC	XL	YY	YL	Z
							25 Stroke or less	Over 25 st to 100 st	Over 100 st to 200 st	25 Stroke or less	Over 25 st to 100 st	Over 100 st to 200 st								
$\varnothing 32$	96	44	110	78	98	63	24	48	124	33	45	83	42	4	4.5	3	6	M8x1.25	16	21
$\varnothing 40$	104	44	118	86	106	72	24	48	124	34	46	84	50	4	4.5	3	6	M8x1.25	16	22
$\varnothing 50$	130	60	146	110	130	92	24	48	124	36	48	86	66	5	6	4	8	M10x1.5	20	24
$\varnothing 63$	130	70	158	124	142	110	28	52	128	38	50	88	80	5	6	4	8	M10x1.5	20	24

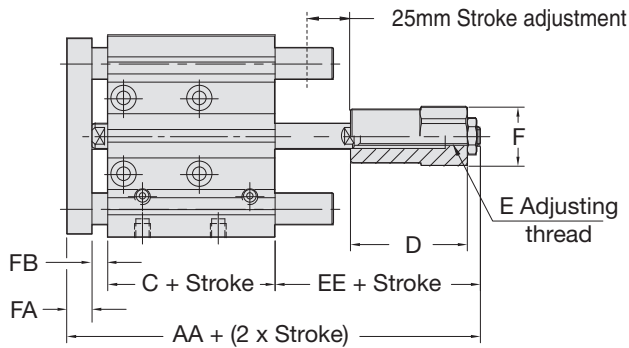
FGML (sleeve bearing) A, DB & E dimensions

Bore Size (mm)	A		DB	E	
	50 Stroke or less	Over 50 to 200 st		50 Stroke or less	Over 50 to 200 st
$\varnothing 32$	97	102	20	37.5	42.5
$\varnothing 40$	97	102	20	31	36
$\varnothing 50$	106.5	118	25	34.5	46
$\varnothing 63$	106.5	118	25	29.5	41

FGMM (ball bearing) A, DB & E dimensions

Bore Size (mm)	A			DB	E		
	50 Stroke or less	Over 50 to 100 st	Over 100 to 200 st		50 Stroke or less	Over 50 to 100 st	Over 100 to 200 st
$\varnothing 32$	81	98	118	16	21.5	38.5	58.5
$\varnothing 40$	81	98	118	16	15	32	52
$\varnothing 50$	93	114	134	20	21	42	62
$\varnothing 63$	93	114	134	20	16	37	57

## Adjustable extend stroke option



Bore Size (mm)	AA	C	D	EE	E	F	FA	FB
ø20	105.5	37	45	52.5	M8x1.25	23	10	6
ø25	106.5	37.5	45	52	M10x1.25	23	11	5
ø32	126.5	37.5	55	67	M12x1.25	32.5	12	10
ø40	135.0	44	55	69	M12x1.25	32.5	12	10
ø50	139.0	44	60	67	M16x1.5	39	16	12
ø63	143.0	49	60	66	M16x1.5	39	16	12

## Adjustable stroke cylinder prices

Cylinder type	Cylinder Stroke (mm)											
	20	25	30	40	50	75	100	*125	*150	*175	*200	
Sleeve bearing	FGML20 x □Y	\$173.35	-	\$176.95	\$180.60	\$182.40	\$195.00	\$211.25	\$229.35	\$241.95	\$252.80	\$265.45
	FGML25	180.60	-	187.80	193.20	198.65	216.70	234.75	252.80	270.85	288.90	306.95
	FGML32	-	\$216.70	-	-	241.95	279.90	303.35	334.05	357.55	379.20	397.25
	FGML40	-	254.60	-	-	279.90	306.95	337.65	371.95	404.45	422.55	449.60
	FGML50	-	288.90	-	-	319.60	350.30	379.20	391.85	422.55	469.45	530.85
	FGML63	-	332.25	-	-	361.15	393.65	424.35	464.05	500.15	536.30	572.40
Ball bearing	FGMM20 x □Y	234.75	-	236.55	245.60	252.80	306.95	325.05	361.15	382.80	417.10	433.35
	FGMM25	252.80	-	258.20	278.10	296.15	366.55	384.60	433.35	453.20	473.10	491.15
	FGMM32	-	292.55	-	-	346.70	382.80	420.70	498.35	527.25	552.55	574.20
	FGMM40	-	306.95	-	-	368.35	411.70	444.20	507.40	541.70	563.35	592.25
	FGMM50	-	371.95	-	-	418.90	464.05	511.00	554.35	586.85	612.10	666.30
	FGMM63	-	424.35	-	-	464.05	507.40	547.10	657.25	686.15	740.30	780.05

**\*Note:**  
Consult factory for delivery of these and other non-standard strokes.

**Options:**  
NPT or metric ports - no extra charge.

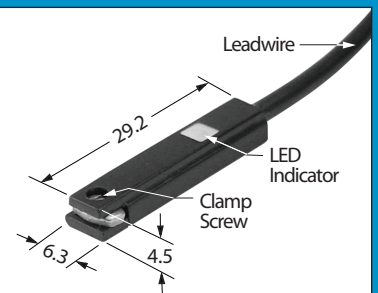
## 9G49 Sensors, specs and prices

Female Cord Sets	Part No.	Price
1 Meter	CFC-1M	\$14.35
2 Meters	CFC-2M	16.05
5 Meters	CFC-5M	20.30

### 9G49 Sensors

Specifications are shown in the sensor selection guides below.

Please order sensors and female cord sets separately from these charts.



6.3 mm wide	9G49 Sensor Selection Guide for all bore sizes ø12 ~ ø63		Pre-wired 9 ft. Leadwire	Quick Disconnect*
	Sensor Type	Electrical Characteristics	Part No.	Part No.
	Reed (LED)	5-120 VDC/VAC, 0.03 Amp max, 0.005 AMP min, 4 Watt max., 2.0 voltage drop	9G49-000-002 ..... \$14.00	9G49-000-302 ..... \$16.50
	Electronic (LED)	Sourcing PNP 5-28 VDC, 0.20 Amp max current, 0.5 voltage drop	9G49-000-031 ..... 27.45	9G49-000-331 ..... 29.95
	Electronic (LED)	Sinking NPN 5-28 VDC, 0.20 Amp max current, 0.5 voltage drop	9G49-000-032 ..... 27.45	9G49-000-332 ..... 29.95

\* Note: All quick disconnect style sensors are supplied with 6 inch pigtail with male connector.